

CLAIMS

1. A gum base composition comprising biodegradable ingredients, wherein said biodegradable ingredients include a lactic acid polymer comprising a poly-L-lactic acid polymer and/or other lactic acid polymers having a glass transition temperature of higher than 50°C in an amount of from 5% by weight to 60% by weight, and an emulsifying plasticizer in an amount of from 1% by weight to 20% by weight.

2. The gum base composition according to claim 1, wherein the content of said lactic acid polymer is from 10% by weight to less than 50% by weight.

3. The gum base composition according to claim 1 or 2, wherein said lactic acid polymer has a weight average molecular weight of 50,000 to 200,000, a glass transition temperature higher than 50°C, and a crystallinity of 20% or less.

4. The gum base composition according to claim 1, 2 or 3, wherein said lactic acid polymer is virtually a poly-L-lactic acid polymer.

5. The gum base composition according to any one of claims 1 to 4, which contains no lactic acid polymers other than a poly-L-lactic acid polymer.

6. The gum base composition according to any one of claims 1 to 5, wherein said lactic acid polymer is a lactic polymer having a glass transition temperature of 55 to 80°C.

7. The gum base composition according to any one of claims 1 to 6, which contains an acetylated monoglyceride as said emulsifying plasticizer.

8. The gum base composition according to claim 7, wherein the ratio by weight of said lactic acid polymer to the acetylated monoglyceride is from 90:10 to 80:20.

9. The gum base composition according to any one of claims 1 to 8, wherein all ingredients of said composition is biologically degradable.

10. A method of producing a gum base composition comprising biodegradable ingredients, which comprises steps of heat kneading and softening a lactic acid polymer comprising a poly-L-lactic acid polymer and/or other lactic acid polymers having a glass transition temperature higher than 50°C in a pressure kneader, and homogenizing the resulting softened lactic acid polymer by adding an emulsifying plasticizer to it, said biodegradable ingredients containing lactic acid polymers in an amount of from 5% by weight to less than 60% by weight.

11. The method of producing a gum base composition according to claim 11, wherein the temperature of said pressure kneader is 120 to 130°C.

12. The method of producing a gum base composition according to claim 10 or 11, said lactic acid polymer is virtually a poly-L-lactic acid polymer.

13. The method of producing a gum base composition according to claim 10, 11 or 12, which contains no lactic acid polymers other than the poly-L-lactic acid polymer.

14. The method of producing a gum base composition according to any one of claims 10 to 13, which contains an acetylated monoglyceride as said emulsifying plasticizer.

15. The method of producing a gum base composition according to any one of claims 10 to 14, wherein the ratio by weight of said lactic acid polymer to said emulsifying plasticizer is from 90:10 to 80:20.